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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,037

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Orlei da Silva Choai

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EXAMINER

CUMBESS, YOLANDA R

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/576,037	Applicant(s) CHOAI, ORLEI DA SILVA	
	Examiner YOLANDA CUMBESS	Art Unit 3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36-57,60-70 and 73-80 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36-57,60-70 and 73-80 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 36-57, 60-70, and 73-80 have been considered but are moot in view of the new ground(s) of rejection.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 36-80 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 36-38, 41, 46, 50-51, 55, 61, 68, and 73-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smithers (US Patent No. 3,978,642) in view of Cohn (US Patent No. 5,868,547). Relative to claims 36-38, 41, 46, and 50-51, Smithers discloses: a vacuum interface (20)(Fig. 4) for connecting to a vacuum source (Col. 3, lines 9-11); a transfer device (A)(Fig. 3-4) for transferring flaccid food materials or pieces ("bacon slices") from a first transport means (C)(Fig. 6) to a second transport means (D)(Fig. 6) or to a weighing system, wherein the pieces are delivered to said

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transfer device (A) via the first transport means (C)(Col. 2, lines 50-55), said transfer device (A) including:

1. a cylinder body (15)(Fig. 4, 7) that can be rotated (Col. 2, lines 60-65) and said cylinder body is provided with a plurality of holes (see holes on surface of Ref. 15, near Ref. 24) through an outer surface of said cylinder body (15)(Fig. 4); and
2. a plurality of vacuum connection means (see spaced passages of Ref. 24) provided inside said cylinder body for connecting said vacuum interface (20)(Fig. 4) to said holes (Col. 3, lines 10-14),
3. said transfer device (A) transfers the pieces ("bacon slices") from the first transport means (C)(Fig. 6) to the second transport means (D) or to said weighing system by rotating said cylinder body (15) while the materials or pieces are held in place by a vacuum provided at holes in communication with the materials or pieces (Col. 3, lines 10-53);
4. each one of said vacuum connection means (24) includes means that are placed inside said cylinder (A)(Fig. 7)(Col. 3, lines 10-15);
5. each one of said vacuum connection means (24) is connected to the cylinder body (see body of A), and each one of said vacuum connection means (24) connects one of the holes on the cylindrical body outer surface (15) to a corresponding one of a plurality of additional holes (see holes on opposite end of Ref. 24, connected to inside surface of Ref. 14) arranged on an end of the cylinder body (Fig. 6-7);

6. the items or pieces that are supplied via the first transport means (C) to a transfer location (Fig. 6) and are transferred to the transfer location until held by the transfer device (Col. 4, lines 22-43);
7. said cylinder body (15) is placed at the transfer location with an axis placed essentially horizontally (Fig. 6);

Relative to claims 55 and 60, the device of Smithers includes: a transfer device (A)(Fig. 4, 7) for transferring pieces from a first transport means (C) to a second transport means (D) or to a weighing system, and the pieces are delivered to said transfer device (A) via the first transport means (C), said transfer device including: a rotating cylinder body (15) having a plurality of first holes (see holes on surface of Ref. 15) on a surface of the cylindrical body (15)(Fig. 7), said cylinder body (15) also have a plurality of second holes (see holes on interior surface of Ref. 14) on an end of said cylinder body, and a plurality of connections (24), wherein each one of said first holes is connected to a corresponding one of said second holes via one of said plurality of connections (14)(Fig. 3-4, 6-7); a vacuum interface (20) connected to a vacuum source and connected to said transfer device (A), said second holes on said transfer device are connected to said vacuum source (20) through a vacuum path (see path of Ref. 23)(Fig. 4), and said transfer device (A) transfers the materials or pieces from the first transport means (C) to the second transport means (D) or to the weighing system by rotating the cylinder body and by utilizing vacuum at said first holes for holding said materials or pieces, and the pieces are released from said holding by removing the vacuum at said first holes (see holes on outside surface of Ref. 15) to transfer the pieces to the second

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transport means (D) or to the weighing system (Fig. 6-7); said cylinder body (15) is placed at the transfer location with an axis placed essentially horizontally (Fig. 6).

Relative to claims 68, and 73 Smithers disclosure includes: a transfer device (A) for transferring pieces from a first transport means (C) to a second transport means (D) or to a weighing system, the pieces are delivered to said transfer device (A) via the first transport means (C) said transfer device including:

a rotating cylinder body (Ref. 15) having a plurality of first holes (see holes on Ref. 15) on a surface of the cylindrical body, said cylinder body also have a plurality of second holes (see holes on surface of Ref. 14) connected to a vacuum interface (20), and a plurality of connections (24); each one of said first holes is connected to a corresponding one of said second holes via one of said plurality of connections (24)(Fig. 6); said vacuum interface (20) is connected to a vacuum source, and said transfer device (A) transfers the pieces from the first transport means (C) to the second transport means (D) or to the weighing system by rotating the cylinder body and by utilizing vacuum at said first holes (see holes on Ref. 15) for holding said pieces, and wherein the pieces are released from said holding by removing the vacuum at said first holes to transfer the materials or pieces to the second transport means (D) or to the weighing system (Col. 3, lines 10-53); said cylinder body (15) is placed at the transfer location with an axis placed essentially horizontally (Fig. 6).

Relative to claims 36-38, 41, 46, 50-51, 55, 61, 68, and 73-74, Smithers does not expressly disclose: the flaccid food pieces are delivered to said transfer device in an accumulated and/or unorderedly form.

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Cohn teaches said flaccid food pieces (10)(Fig. 1) are delivered to said transfer device (38)(Fig. 2) in an accumulated and/or unordered form (Col. 4, lines 58-67; Col. 3, lines 11-15) for the purpose of providing an improved transfer assembly for a food product which can accurately and reliably strip food product units from one conveyor without crumpling them and transfer them to the drop-off point (Col. 2, lines 18-25).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Smithers so that the food pieces are delivered to the transfer device in an accumulated and/or unordered form as taught in Cohn for the purpose of providing an improved transfer assembly for a food product which can accurately and reliably strip food product units from one conveyor without crumpling them and transfer them to the drop-off point.

Relative to claims 52, 62, and 75 it is apparent in the device of Smithers that said pieces may differ in size, shape, thickness, and/or weight from each other (see Ref. 44, Fig. 7). Further, providing pieces in a transfer apparatus that differ in size, shape, or thickness is an obvious matter of design choice (See also: Mally, US 5,391,386, Fig. 3; Smithers, US Patent No. 4,041,676, Col. 6, lines 45-50).

Claims 39-40, 42-45, 47-49, 56-57, 65-67, 69-70, and 78-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smithers and Cohn as applied to claims 36, 55, or 68 above, and further in view of Staton (US Patent No. 4,722,432).

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Smithers discloses all claim limitations, but does not expressly disclose: said vacuum interface includes a flange coupled to said vacuum connection means; said flange includes a vacuum distribution chamber; a plurality of tubes provided within said cylindrical body, wherein each one of said vacuum connection means includes one of said tubes for connecting to at least one of said holes; each one of said tubes are connected to the cylinder body and each one of said tubes connect one of the holes on the outer surface to a corresponding one of a plurality of additional holes arranged in a circle on an end of the cylinder body; said vacuum interface includes a flange that faces the end of the cylinder having the additional holes and has a passage arranged in an arc having a radius substantially equal to the radius of the circle on which the additional holes are arranged; the length of the arc determines the angular distance for which the materials or pieces are held in place by the vacuum at the holes on the cylinder body; a flange that faces the end of the cylinder having the additional holes and has a passage arranged in a pattern corresponding to the additional holes; each of said holes on the cylindrical surface has a socket attached thereto and provided on the surface of said cylinder body for contacting and holding the pieces; said sockets include one or more of: an oval nozzle resulting from an inclined cut at an end of the cylinder body forming the socket, a circular nozzle formed by a normal cross-section of the cylinder body forming the socket, a hollow truncated cone nozzle formed by beveling the normal cross- section of a straight end of the cylinder body forming the socket, a circular nozzle formed by a ring type cylindrical boss on a top of the cylinder body forming the socket and/or a rectangular nozzle on a top end of the cylinder body forming the socket.

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Staton discloses: said vacuum interface includes a flange (50)(Fig. 4) coupled to a vacuum connection means (Col. 4, lines 1-10); said flange (50) includes a vacuum distribution chamber (Col. 5, lines 25-35); a plurality of tubes (78a-h)(“flexible hosing”) provided within said cylindrical body (Col. 4, lines 42-50), each one of said vacuum connection means includes one of said tubes (78a-h) for connecting to at least one of the holes (Fig. 3); each one of said tubes (78a-h) are connected to the cylinder body (46) and each one of said tubes connect one of the holes on the outer surface (see outer surface of Ref. 46) to a corresponding one of a plurality of additional holes arranged in a circle on an end of the cylinder body (see holes near center of Ref. 46); said vacuum interface includes a flange (50) that faces the end of the cylinder (Fig. 4) having the additional holes (see holes near 92, 90, 96) and has a passage arranged in an arc (see radius of groove of Ref. 86) having a radius substantially equal to the radius of the circle on which the additional holes are arranged (Fig. 4); the length of the arc determines the angular distance for which the pieces are held in place by the vacuum at the holes on the cylinder body (Col. 5, lines 1-15, Col. 6, lines 30-40); a flange (50) that faces the end of the cylinder (46) having the additional holes (92, 90, 96) and has a passage arranged in a pattern corresponding to the additional holes (Fig. 4); each of said holes on the cylindrical surface has a socket (see sockets on end of Ref. 78a-h) attached thereto and provided on the surface of said cylinder body (46) for contacting and holding the materials or pieces; said sockets include one or more of: an oval nozzle resulting from an inclined cut at an end of the cylinder body forming the socket, a circular nozzle (see Ref. 48, which is circular)(Col. 4, lines 35-50) formed by a normal

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cross-section of the cylinder body forming the socket, a hollow truncated cone nozzle formed by beveling the normal cross-section of a straight end of the cylinder body forming the socket, a circular nozzle formed by a ring type cylindrical boss on a top of the cylinder body forming the socket and/or a rectangular nozzle on a top end of the cylinder body forming the socket.

Stanton discloses the flange, vacuum distribution chamber, tubes, sockets, and nozzles as mentioned above for the purpose of providing a product transfer apparatus with enhanced flexibility and controlled application of air pressure by the position and arcuate length of the vacuum (Col. 2, lines 45-60).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Smithers with the flange, vacuum distribution chamber, tubes, sockets, and nozzles as taught in Stanton for the purpose of providing a product transfer apparatus with enhanced flexibility and controlled application of air pressure by the position and arcuate length of the vacuum.

Claims 54, 64, and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smithers and Cohn as applied to claims 36 and 55, and 68 above, and further in view of LaPlace et al (US Patent No. 6,595,739). Relative to claims, 36, 55, and 68, Smithers and Cohn disclose all claim limitations, but do not expressly disclose: said pieces that are delivered by said transfer device are being graded.

LaPlace teaches: a transfer device, wherein said pieces that are delivered by said transfer device are being graded (Col. 4, lines 20-35) for the purpose of providing

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an apparatus capable of accurately stacking and packaging slices of food products which have been transferred at high speeds and with high reliability (Col. 1, lines 38-43).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Smithers and Cohn so that the pieces delivered are graded as taught in LaPlace for the purpose of providing an apparatus capable of accurately stacking and packaging slices of food products which have been transferred at high speeds and with high reliability

Claims 53, 63, and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smithers and Cohn as applied to claims 36, 55, and 68 above, and further in view of Wadell (US Patent No. 4,762,083). Relative to claims 53, 63 and 76, Smithers discloses all claim limitations, but does not expressly disclose: pieces that are not caught by the rotating cylinder body can continue to a discharge point in order to be placed back on the first transport means.

Wadell teaches pieces that are not caught by the rotating cylinder body (29)(Fig. 1) can continue to a discharge point (16, 17)(Fig. 1) in order to be placed back on the first transport means (Col. 4, lines 40-50) in order to provide an apparatus that enables excess food material to be circulated evenly and without damage (Col. 1, lines 45-55)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Smithers and Cohn so that the pieces that are not caught by the rotating cylinder body can continue to a discharge point in order to be

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placed back on the first transport means as taught in Wadell in order to provide an apparatus that enables excess food material to be circulated evenly and without damage.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOLANDA CUMBESS whose telephone number is (571)270-5527. The examiner can normally be reached on MON-THUR 9AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GENE CRAWFORD can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gene Crawford/
Supervisory Patent Examiner, Art
Unit 3651

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/YOLANDA CUMBESS/

Examiner, Art Unit 3651